



PTO/SB/08A (10-01)

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Substitute Form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 1

of 3

Complete if Known

Application Number	10/797,155
Filing Date	March 11, 2004
First Named Inventor	JoeBen Bevirt
Art Unit	2631 3743 3711
Examiner Name	Unassigned Farnstrom
Attorney Docket Number	IMMR081/02US

U.S. PATENT DOCUMENTS

Examiner	Cite No. ¹	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
KF		6,422,941		7/23/2002	Thomer et al.	
		6,160,489		12/12/2000	Perry et al.	
		6,111,577		8/29/2000	Zilles et al.	
		5,690,582		11/25/1997	Ulrich et al.	
		5,575,761		11/19/1996	Hajianpour	
		5,437,607		8/1/1995	Taylor	
		5,436,622		7/25/1995	Gutman et al.	
		5,283,970		2/8/1994	Aigner	
		5,186,695		2/16/1993	Mangseth et al.	
		5,175,459		12/29/1992	Daniel et al.	
		5,165,897		11/24/1992	Johnson	
		5,022,384		6/11/1991	Freels	
		4,885,565		12/5/1989	Embach	
		4,484,191		11/20/1984	Vavra	
		4,464,117		8/7/1984	Foerst	
		4,333,070		6/1/1982	Barnes	
		4,262,549		4/21/1981	Schwellenbach	
		4,127,752		11/28/1978	Lowthorp	
		2,972,140		2/14/1961	Hirsch	

Examiner Initials*	Cite No. ¹	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Country Code ³	Number ⁴	Kind Code ⁵ (if known)			
KF		JP	H2-185278		7/19/1990	Taito Corporation	
		JP	H4-8381		1/13/1992	Epoch Co. and Key- Planning Co.	
		JP	H7-24147		1/27/1995	Sega Corporation	
		JP	H5-192449		8/3/1993	Taito Corporation	

Examiner
Signature

KF FET

Date
Considered

12/19/05

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¹ Applicant's unique citation designation number (optional). ² Kind Codes of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Sheet **2** of **3****Complete if Known**

Application Number	10/797,155
Filing Date	March 11, 2004
First Named Inventor	Joe Ben Bevirt
Art Unit	2631 374
Examiner Name	Unassigned Farnstrom
Attorney Docket Number	IMMR081/02US

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
IC		PATRICK, "Design, Construction, and Testing of a Fingertip Tactile Display for Interaction with Virtual and Remote Environments," <i>Master of Science Thesis</i> , MIT, Aug. 1990, archived Nov. 8, 1990.
		CALDER, "Design of A Force-Feedback Touch-Introducing Actuator For Teleoperator Robot Control," <i>Bachelor of Science Thesis</i> , MIT, May 1983, archived June 23, 1983.
		WIKER, "Teletouch Display Development: Phase 1 Report," <i>Technical Report 1230</i> , Naval Ocean Systems Center, San Diego, July 1988.
		BLISS, "Optical-to-Tactile Image Conversion for the Blind," <i>IEEE Transactions on Man-Machine Systems</i> , Vol. MMS-11, No. 1, March 1970.
		JOHNSON, "Shape-Memory Alloy Tactile Feedback Actuator," <i>Armstrong Aerospace Medical Research Laboratory</i> , AAMRL-TR-90-039, August, 1990.
		KONTARINIS et al., "Tactile Display of Vibratory Information in Teleoperation and Virtual Environments," <i>PRESENCE</i> , 4(4):387-402, Harvard Univ., 1995.
		AUKSTAKALNIS et al., "Silicon Mirage: The Art and Science of Virtual Reality," ISBN 0-938151-82-7, pp. 129-180, 1992.
		EBERHARDT et al., "Inducing Dynamic Haptic Perception by The Hand: System Description and Some Results," <i>DSC-Vol. 55-1, Dynamic Systems and Control: Volume 1</i> , ASME 1994.
		GOBEL et al., "Tactile Feedback Applied to Computer Mice," <i>International Journal of Human-Computer Interaction</i> , Vol. 7, No. 1, pp. 1-24, 1995.
		PIMENTEL et al., "Virtual Reality: through the new looking glass," 2 nd Edition; McGraw-Hill, ISBN 0-07-050167-X, pp. 41-202, 1994.
		"Cyberman Technical Specification," <i>Logitech Cyberman SWIFT Supplement to Logitech Mouse Technical Reference and Programming Guide</i> , 4/5/1994.
		OUHYOUNG et al., "The Development of A Low-Cost Force Feedback Joystick and Its Use in the Virtual Reality Environment," <i>Proceedings of the Third Pacific Conference on Computer Graphics and Applications, Pacific Graphics '95</i> , Seoul, Korea, 21-24 August 1995.
		KACZMAREK et al., "Tactile Displays," <i>Virtual Environment Technologies</i> , Chap. 9, pp. 349-414.
		LAKE, "Cyberman from Logitech," at http://www.ibiblio.org/GameBytes/issue21/greviews/cyberman.html , 1994.
		"Component Maintenance Manual With Illustrated Parts List, Coaxial Control Shaker Part No. C-25502," Safe Flight Instrument Corporation, Revised 28 January 2002 (3 pages).

Examiner Signature	<i>IC Farnstrom</i>	Date Considered	12/19/05
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Substitute for form 1449A/PTO		Complete if Known			
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	10/797,155		
		Filing Date	March 11, 2004		
		First Named Inventor	Joe Ben Bevirt		
		Art Unit	2631-3711		
		Examiner Name	Unassigned Forster		
Sheet	3	of	3	Attorney Docket Number	IMMR081/02US

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS		
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
KE		"Technical Manual Overhaul Instructions With Parts Breakdown, Coaxial Control Shaker Part No. C-25502," Safe Flight Instrument Corporation, Revised 15 July 1980 (23 pages).
I		SCANNELL, "Taking a Joystick Ride," <i>Computer Currents</i> , Boston Edition, Vol. 9, No. 11, November 1994
↓		ROSENBERG, "Virtual Fixtures: Perceptual Overlays Enhance Operator Performance In Telepresence Tasks," <i>Ph.D. Dissertation</i> , Stanford University, June 1994.

Examiner Signature	KE	Date Considered	12/19/05
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Substitute for form I 449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		<i>Complete if Known</i>			
		Application Number	Unassigned 10/797/155		
		Filing Date	Herewith 3/11/04		
		First Named Inventor	Joe Ben BEVIRT		
		Group Art Unit	Unassigned 3711		
		Examiner Name	Unassigned Ferguson		
Sheet	1	of	8	Attorney Docket Number	IMMR-081/02US

PTO/SB/08A (08-00)

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
		Number	Kind Code ² (if known)		
ICF	A1	6,323,837		Rosenberg	11/27/2001
	A2	6,246,390		Rosenberg	06/12/2001
	A3	6,193,519		Eggert et al.	02/2001
	A4	6,104,382		Martin et al.	08/15/2000
	A5	6,024,576		Bevirt et al.	02/2000
	A6	6,020,875		Moore et al.	02/01/2000
	A7	5,828,197		Martin et al.	10/27/1998
	A8	5,821,920		Rosenberg et al.	10/13/1998
	A9	5,816,105		Adelstein	10/06/1998
	A10	5,805,140		Rosenberg et al.	09/08/1998
	A11	5,790,108		Salcudean et al.	08/04/1998
	A12	5,785,630		Bobick, et al.	07/28/1998
	A13	5,769,640		Jacobus et al.	06/23/1998
	A14	5,767,839		Rosenberg	06/16/1998
	A15	5,766,016		Sinclair et al.	06/16/1998
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	A17	5,742,278		Chen et al.	04/21/1998
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	A19	5,734,373		Rosenberg	03/31/1998
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	A25	5,666,138		Culver	09/09/1997
	A26	5,656,901		Kurita	08/12/1997
	A27	5,643,087		Marcus et al.	07/01/1997
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	A30	5,625,576		Masie et al.	04/29/1997
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	A33	5,589,854		Tsai	12/31/1996
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	A38	5,551,701		Bouton et al.	09/03/1996
	A39	5,547,382		Yamasaki et al.	08/20/1996
	A40	5,513,100		Parker et al.	04/30/1996
	A41	5,512,919		Araki	04/30/1996
	A42	5,491,477		Clark et al.	02/13/1996
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	A44	5,466,213		Hogan et al.	11/14/1995

¹ Unique citation designation number.

² See attached Kinds of U.S. Patent Documents.

Examiner Signature	ICF Felt	Date Considered	12/19/05
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			Application Number	Unassigned 10/797,155	
			Filing Date	Herewith 3/11/04	
			First Named Inventor	JocBen BEVIRT	
			Group Art Unit	Unassigned 3711	
			Examiner Name	Unassigned Fernston	
Sheet	2	of	8	Attorney Docket Number	IMMR-081/02US

U.S. PATENT DOCUMENTS					
105	A45	5,459,382		Jacobus et al.	10/17/1995
	A46	5,451,924		Massimino et al.	09/19/1995
	A47	5,445,166		Taylor	08/29/1995
	A48	5,436,640		Reeves	07/25/1995
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	A50	5,429,140		Burdea et al.	07/04/1995
	A51	5,428,748		Davidson et al.	06/27/1995
	A52	5,414,337		Schuler	05/09/1995
	A53	5,412,880		Raab	05/09/1995
	A54	5,405,152		Katanics et al.	04/11/1995
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	A57	5,396,267		Bouton	03/07/1995
	A58	5,396,266		Brimball	03/07/1995
	A59	5,389,865		Jacobus et al.	02/14/1995
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	A61	5,351,692		Dow et al.	10/04/1994
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	A69	5,264,768		Gregory et al.	11/23/1993
	A70	5,251,127		Raab	10/05/1993
	A71	5,243,266		Kasagami et al.	09/07/1993
	A72	5,240,417		Smithson et al.	08/31/1993
	A73	5,230,623		Guthrie et al.	07/27/1993
	A74	5,228,356		Chuang	07/20/1993
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	A79	5,193,963		McAffee et al.	03/16/1993
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	A81	5,185,561		Good et al.	02/09/1993
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	A83	5,184,306		Erdman et al.	02/02/1993
	A84	5,182,557		Lang	01/26/1993
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	A92	5,088,046		McMurtry	02/11/1992
	A93	5,078,152		Bond et al.	01/07/1992
	A94	5,072,361		Davis et al.	12/10/1991
	A95	5,050,608		Watanabe et al.	09/24/1991
✓	A96	5,044,956		Behensky et al.	09/03/1991

Examiner Signature	Kat Felt	Date Considered	12/19/05
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			Application Number	Unassigned 10/797/155	
			Filing Date	Herewith 3/11/84	
			First Named Inventor	Joe Ben BEVIRT	
			Group Art Unit	Unassigned 3711	
			Examiner Name	Unassigned Ferguson	
Sheet	3	of	8	Attorney Docket Number	IMMR-081/02US

U.S. PATENT DOCUMENTS					
✓	A97	5,040,306		McMurtry et al.	08/20/1991
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	A100	5,022,407		Horch et al.	06/11/1991
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	A102	5,007,300		Siva	04/16/1991
	A103	4,982,504		Soderberg et al.	01/08/1991
	A104	4,962,448		DeMaio et al.	10/09/1990
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	A110	4,930,770		Baker	06/05/1990
	A111	4,907,973		Hon	03/13/1990
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	A113	4,896,554		Culver	01/30/1990
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	A122	4,791,934		Brunnett	12/20/1988
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	A124	4,769,763		Trieb et al.	09/06/1988
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	A130	4,638,798		Shelden et al.	01/27/1987
	A131	4,632,341		Repperger et al.	12/30/1989
	A132	4,604,016		Joyce	08/05/1986
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	A140	4,398,889		Lam et al.	08/16/1983
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	A145	4,148,014		Burson	04/03/1979
	A146	4,125,800		Jones	11/14/1978
	A147	3,944,798		Eaton	03/16/1976
	A148	3,919,691		Noll	11/11/1975

Examiner Signature	<i>[Signature]</i>	Date Considered	12/19/85
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			Application Number	Unassigned-10/797,135	
			Filing Date	Herewith 3/11/64	
			First Named Inventor	JocBen BEVIRT	
			Group Art Unit	Unassigned 3711	
Examiner Name	Unassigned Fenton				
Sheet	4	of	8	Attorney Docket Number	IMMR-081/02US

U.S. PATENT DOCUMENTS					
10F	A149	3,911,416		Feder	10/07/1975
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	A152	3,890,958		Fister et al.	06/24/1975
	A153	3,875,488		Crocker et al.	04/01/1975
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	A155	3,623,064		Kagan	11/23/1971
	A156	3,517,446		Corlyon et al.	06/30/1970
	A157	3,497,668		Hirsch	02/24/1970
	A158	3,490,059		Paulsen et al.	01/13/1970
	A159	3,220,121		Cutler	11/30/1965
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✓	A161	2,906,179		Bower	09/29/1959

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Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
		Office ¹	Number ²	Kind Code ³ (if known)		
10F	B1		0 349 086	A1	Stork Kwant B.V.	01/03/1990
	B2		2 254 911	A		10/21/1992
	B3		WO95/02233			01/19/1995
	B4		WO95/02801			01/26/1995
	B5		WO95/10080			04/13/1995
	B6		WO95/20787			08/03/1995
	B7		WO95/20788			08/03/1997
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	B9		WO96/16397			05/30/1996
	B10		WO96/22591			07/25/1996
	B11		4-34610			02/05/1992
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	B13		WO96/39944			12/19/1996
✓	B14		WO94/00052			01/06/1994

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			Group Art Unit	Unassigned 3711	
			Examiner Name	Unassigned Ferstman	
Sheet	5	of	8	Attorney Docket Number	IMMR-081/02US

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Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
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Examiner Name	Unassigned Ferstner					
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